CLAIMS

1. A confocal endomicroscope comprising a light source (2), a fiber optic bundle (9) having a proximal end (8) and a distal end (15), and a micromirror unit (4) for injecting the light from the light source (2) into the proximal end (8) of the fiber optic bundle (9), characterized in that the diameter of the optical fibers (10) of the fiber optic bundle (9) is greater at the proximal end (8) than at the distal end (15).

2. The confocal endomicroscope as claimed in claim 1, characterized in that the optical fibers (10) taper essentially conically from the proximal end (8) to the distal end (15).

3. The confocal endomicroscope as claimed in claim 1 or 2, characterized in that the ratio of the diameters of the optical fibers (10) at the proximal end (8) to the diameters of the optical fibers (10) at the distal end (15) is at most 3.

4. The confocal endomicroscope as claimed in one of claims 1 to 3, characterized in that the optical fibers (10) are arranged in a fixed grid at the proximal end (8) of the fiber optic bundle (9).

5. The confocal endomicroscope as claimed in claim 4, characterized in that a fiber holding unit (11) with openings to hold the proximal fiber ends is provided for the arrangement in a grid.

6. The confocal endomicroscope as claimed in one of claims 1 to 5, characterized in that a microlens unit (13) is arranged in the radiation direction before the proximal end (8) of the fiber optic bundle (9), so that the light is focused by the individual microlenses

(14) onto the proximal end (8) of the illuminated optical fibers (10).